

REMARKS

Claims 1-87 are pending in action, with claims 1, 8, 16, 22, 28, 33, 39, 45, 52, 60, 67, 74, and 81 being independent. Claim 29 is being canceled. Claims 1, 5, 6, 8, 13, 14, 16, 20, 22, 28, 33, 39, 43, 45-60, 64, 67, 74, 81, and 85 are being amended. No new matter has been added.

Claims 1, 8, 16, 22, 28, 33, 39, 45, 52, 60, 67, 74, and 81 are objected to because of alleged informalities.

Claim 16 is objected to because it allegedly is not clear from the drawings or specification what a formatter is, as claimed to be in an apparatus.

Claim 29 is objected to because it is allegedly redundant, as OFDM is already disclosed in claim 28.

Claims 45 and 52 are objected to because they allegedly do not illustrate a computer instruction set being performed.

Claim 33 is rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement.

Claims 45-59 are rejected under 35 U.S.C. 112, first paragraph, as allegedly based on a disclosure which is not enabling.

Claims 4, 11, 19, 25, 31, 36, 42, 48, 55, 63, 70, 77, and 84 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4, 7-12, 15-19, 21-36, 38-48, 51-56, 59-63, 65, 67-72, 74-77, 79, and 81-86 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wang et al. (U.S. 2002/0003774 A1) in view of Webster et al. (U.S. 2005/0075815 A1).

Claims 5, 6, 13, 14, 20, 37, 49, 50, 57, 58, 64, 66, 73, 78, 80, and 87 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wang et al. (U.S. 2002/0003774 A1) in view of Webster et al. (U.S. 2005/0075815 A1) further in view of Shoemake et al. (U.S. 2003/0231715 A1).

Applicants respectfully traverse these rejections. Reexamination of the application and reconsideration of the action are respectfully requested in light of the foregoing amendments and the following remarks.

Drawings

Applicants respectfully request that the Examiner indicate that the drawing sheets for Figs. 1-9 filed on March, 11, 2004, are acceptable.

Objections

Claims 1, 8, 16, 22, 28, 33, 39, 45, 52, 60, 67, 74, and 81 are objected to because of alleged informalities. The Examiner states that “the subject claims recite ‘DC’ all appearing for the first time either in an independent claim or its dependent claim must be spelled out at least once.” Applicants respectfully disagree. Applicants submit that “DC” is understood as corresponding to zero and cannot be spelled out in this context. However, Applicants have amended the claims to recite “a tone”. In view of these amendments, Applicants respectfully request that the objections to claims 1, 8, 16, 22, 28, 33, 39, 45, 52, 60, 67, 74, and 81 be withdrawn.

Claim 16 is objected to because it allegedly is not clear from the drawings or specification what a formatter is, as claimed to be in an apparatus. Applicants have amended claim 16 to recite a “transmit section”. No new matter has been added. Support for the amendment can be found at least in the claims as originally filed (e.g., claim 60 that recited “a transmit section”). In view of these amendments, Applicants respectfully request that the objection to claim 16 be withdrawn.

Claim 29 is objected to because it is allegedly redundant because OFDM is already disclosed in claim 28. Applicants have canceled claim 29, rendering the objection moot.

Claims 45 and 52 are objected to because they allegedly do not illustrate a computer instruction set being performed. Applicants have amended the claims to recite “a computer readable medium having instructions stored thereon, which, when executed by a processor,

causes the processor to perform operations". In view of these amendments, Applicants respectfully request that the objections to claims 45 and 52 be withdrawn.

Section 112 Rejections

Claim 33 is rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement. Applicants respectfully traverse the rejections.

The Examiner states that "the claim is a single means claim which is subject to an undue breadth and therefore rejected accordingly (see MPEP 2164.08a)." As a clarification, Applicants have amended the claim to include other recited elements of means (e.g., means for generating a first pilot symbol, means for generating a second pilot symbol). In view of these amendments, Applicants respectfully request that the rejection to claim 33 be withdrawn.

Claims 45-59 are rejected under 35 U.S.C. 112, first paragraph, as allegedly based on a disclosure which is not enabling. Applicants respectfully traverse the rejections.

The Examiner states that "the disclosure explicitly fails to recite the above subject matter [a computer program and/or computer readable medium critical or essential to the practice of the invention] within its specifications, it is not clear how the computer program is implemented based on either the specifications and/or drawings." Applicants respectfully disagree. Applicants submit that generating computer programs is known in the art, and the specification teaches what instructions of a computer program can be written to do. Furthermore, support could be found at least in the claims as originally filed. (e.g., claim 45 that recited "a computer program").

Applicants have amended the specification to recite that "systems (e.g., wireless systems such as an OFDM (Orthogonal Frequency Division Multiplexing) system), methods, and apparatuses including computer-readable mediums may utilize pilot symbol structures including two pilot symbols with pilot information on alternate tones." No new matter has been added. In view of these amendments, Applicants respectfully request that the rejections to claims 45-59 be withdrawn.

Claims 4, 11, 19, 25, 31, 36, 42, 48, 55, 63, 70, 77, and 84 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse the rejections.

The Examiner states that "it is not clear from the drawings and/or specifications how are the pilot symbol structures defined as being first, second or third." Applicants respectfully disagree. The claims recite that "the third pilot symbol is *between* the first pilot symbol and the second pilot symbol." See, e.g., claim 4. The claims clearly define the third pilot symbol as being *between* the first pilot symbol and the second pilot symbol.

Furthermore, the specification and Fig. 5 provide examples of a first, a second and a third pilot symbol. "The structure 500 includes symbol L1 304 and two copies of pilot symbol L0 302" Specification at paragraph [0030]. Fig. 5 includes a pilot symbol L0 and a pilot symbol L1, with another pilot symbol L0 between the pilot symbol L0 and the pilot symbol L1. See, Fig. 5. Therefore, Applicants submit that a first, a second, and a third pilot symbol are clearly defined in the claims, the drawings, and the specification. Applicants respectfully request that the rejections to claims 4, 11, 19, 25, 31, 36, 42, 48, 55, 63, 70, 77, and 84 be withdrawn.

Section 103 Rejections

Claims 1-4, 7-12, 15-19, 21-36, 38-48, 51-56, 59-63, 65, 67-72, 74-77, 79, and 81-86 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wang et al. (U.S. 2002/0003774 A1) in view of Webster et al. (U.S. 2005/0075815 A1).

Claims 5, 6, 13, 14, 20, 37, 49, 50, 57, 58, 64, 66, 73, 78, 80, and 87 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wang et al. (U.S. 2002/0003774 A1) in view of Webster et al. (U.S. 2005/0075815 A1) further in view of Shoemake et al. (U.S. 2003/0231715 A1).

Applicants respectfully traverse the rejections.

Claim 1 and its dependent claims

In the statement of rejection, the Examiner asserts that “Wang discloses an OFDM system comprising: transmitting a pilot symbol structure including a first pilot symbol including pilot information on a first plurality of alternate tones and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides.”

Claim 1 recited that “tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a DC tone.” Applicants acknowledge the Examiner’s statement that “Wang fails to disclose pilot symbols at equidistant from the DC tone.” Page 4 of Office Action dated 2/4/2008. However, Webster does not cure the deficiencies of Wang.

The Examiner states that Webster discloses “a DC offset that places pilot symbols at equidistant from the DC tone Equidistant DC offset of pilot symbols allows for a quality transmission Thus it would have been obvious at the time the invention was made to incorporate the teachings of Webster within Wang so as to improve the signal resolution. . . .”

Applicants respectfully disagree. As an initial matter, Webster discloses that DC offsets are undesirable distortions. See, Webster at page 1, paragraph [0004] (distortions include DC offsets); page 3, paragraph [0038] (undesired DC offset signal I_{DC}). In addition, DC offsets do not refer to any distances, let alone a same distance, from a DC *tone*. DC offsets refer to the offsetting of a signal magnitude from zero. See, Webster at page 4, paragraph [0047] (a discrepancy between the average values [of the magnitudes of the E_D samples] is proportional to the amount of I_{DC} of the signal); page 5, paragraph [0054] (a discrepancy between the average values [of the magnitudes of the E_D signal samples] is proportional to the amount of Q_{DC} of the signal); page 9, paragraph [0080] (DC offsets may negatively impact determination of amplitude and phase compensation). For at least this reason, Applicants submit that claim 1 is allowable.

As amended, claim 1 recites that the “tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone.”

Applicants further submit that relied upon portions of neither Wang nor Webster disclose this feature.

Claims 2-7 depend from claim 1 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 1.

Claim 3 is separately allowable for at least the following additional reasons. The Examiner asserts that Wang discloses that “the pilot symbol structure further includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol (Paras 31 Fig. 3A and 4A, third pilot symbol 44 is identical to 22 in Fig. 3A).” Contrary to the Examiner’s assertion, Wang discloses that pilot symbol 44 is a second pilot symbol. See, Wang at paragraph [0031] (“The second pilot symbols 42, 44 ...”). Wang does not disclose a third pilot symbol. Rather, Wang discloses that all of the symbols in Fig. 3A are first pilot symbols and all of the symbols in Fig. 4A are second pilot symbols. See, Wang at paragraphs [0030]-[0031]. Applicants respectfully assert that Wang does not disclose a third pilot symbol, let alone a third pilot symbol being identical to the first pilot symbol.

Claim 4 is separately allowable for at least the following additional reasons. The Examiner asserts that “Wang discloses a third symbol say 43 (Fig. 4A) in between first symbol 42 and second symbol 44.” Contrary to the Examiner’s assertion, Wang discloses that pilot symbol 43 is a second pilot symbol. See, Wang at paragraph [0031] (“the second pilot symbols 42 and 43 ...”). Because Wang does not disclose a third pilot symbol, Wang also does not disclose a third pilot symbol being between the first pilot symbol and the second pilot symbol.

Claim 8 and its dependent claims

Claim 8, as amended, is directed to a method and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 8 is allowable over Wang and Webster in combination.

Claims 9-15 depend from claim 8 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 8.

Claim 10 is separately allowable for at least the following additional reasons. Claim 10 is directed to a method and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 10 is allowable over Wang and Webster in combination.

Claim 11 depends from claim 10 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 10. Claim 11 is separately allowable for at least the following additional reasons. Claim 11 is directed to a method wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 11 is allowable over Wang and Webster in combination.

Claim 16 and its dependent claims

Claim 16, as amended, is directed to an apparatus and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 16 is allowable over Wang and Webster in combination.

Claims 17-21 depend from claim 16 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 16.

Claim 18 is separately allowable for at least the following additional reasons. Claim 18 is directed to an apparatus and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 18 is allowable over Wang and Webster in combination.

Claim 19 depends from claim 18 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 18. Claim 19 is separately allowable for at

least the following additional reasons. Claim 19 is directed to an apparatus wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 19 is allowable over Wang and Webster in combination.

Claim 22 and its dependent claims

Claim 22, as amended, is directed to an apparatus and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 22 is allowable over Wang and Webster in combination.

Claims 23-27 depend from claim 22 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 22.

Claim 24 is separately allowable for at least the following additional reasons. Claim 24 is directed to an apparatus and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 24 is allowable over Wang and Webster in combination.

Claim 25 depends from claim 24 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 24. Claim 25 is separately allowable for at least the following additional reasons. Claim 25 is directed to an apparatus wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 25 is allowable over Wang and Webster in combination.

Claim 28 and its dependent claims

Claim 28, as amended, is directed to an OFDM pilot symbol structure and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot

symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 28 is allowable over Wang and Webster in combination.

Claims 30-32 depend from claim 28 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 28.

Claim 30 is separately allowable for at least the following additional reasons. Claim 30 is directed to an OFDM pilot symbol structure and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 30 is allowable over Wang and Webster in combination.

Claim 31 depends from claim 30 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 18. Claim 31 is separately allowable for at least the following additional reasons. Claim 31 is directed to an OFDM pilot symbol structure wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 31 is allowable over Wang and Webster in combination.

Claim 33 and its dependent claims

Claim 33, as amended, is directed to an apparatus and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 33 is allowable over Wang and Webster in combination.

Claims 34-38 depend from claim 33 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 33.

Claim 35 is separately allowable for at least the following additional reasons. Claim 35 is directed to an apparatus and includes a third pilot symbol, the third pilot symbol being identical

to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 35 is allowable over Wang and Webster in combination.

Claim 36 depends from claim 35 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 35. Claim 36 is separately allowable for at least the following additional reasons. Claim 36 is directed to an apparatus wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 36 is allowable over Wang and Webster in combination.

Claim 39 and its dependent claims

Claim 39, as amended, is directed to an apparatus and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 39 is allowable over Wang and Webster in combination.

Claims 40-44 depend from claim 39 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 39.

Claim 41 is separately allowable for at least the following additional reasons. Claim 41 is directed to an apparatus and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 41 is allowable over Wang and Webster in combination.

Claim 42 depends from claim 41 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 41. Claim 42 is separately allowable for at least the following additional reasons. Claim 42 is directed to an apparatus wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 42 is allowable over Wang and Webster in combination.

Claim 45 and its dependent claims

Claim 45, as amended, is directed to a computer-readable medium and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 45 is allowable over Wang and Webster in combination.

Claims 46-51 depend from claim 45 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 45.

Claim 47 is separately allowable for at least the following additional reasons. Claim 47 is directed to an computer-readable medium and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 47 is allowable over Wang and Webster in combination.

Claim 48 depends from claim 47 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 47. Claim 48 is separately allowable for at least the following additional reasons. Claim 48 is directed to a computer-readable medium wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 48 is allowable over Wang and Webster in combination.

Claim 52 and its dependent claims

Claim 52, as amended, is directed to a computer-readable medium and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 52 is allowable over Wang and Webster in combination.

Claims 53-59 depend from claim 52 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 52.

Claim 54 is separately allowable for at least the following additional reasons. Claim 54 is directed to an computer-readable medium and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 54 is allowable over Wang and Webster in combination.

Claim 55 depends from claim 54 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 54. Claim 55 is separately allowable for at least the following additional reasons. Claim 55 is directed to a computer-readable medium wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 55 is allowable over Wang and Webster in combination.

Claim 60 and its dependent claims

Claim 60, as amended, is directed to a system and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 60 is allowable over Wang and Webster in combination.

Claims 61-66 depend from claim 60 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 60.

Claim 62 is separately allowable for at least the following additional reasons. Claim 62 is directed to a system and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 62 is allowable over Wang and Webster in combination.

Claim 63 depends from claim 62 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 62. Claim 63 is separately allowable for at

least the following additional reasons. Claim 63 is directed to a system wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 63 is allowable over Wang and Webster in combination.

Claim 67 and its dependent claims

Claim 67, as amended, is directed to a system and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 67 is allowable over Wang and Webster in combination.

Claims 68-73 depend from claim 67 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 67.

Claim 69 is separately allowable for at least the following additional reasons. Claim 69 is directed to a system and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 69 is allowable over Wang and Webster in combination.

Claim 70 depends from claim 69 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 69. Claim 70 is separately allowable for at least the following additional reasons. Claim 70 is directed to a system wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 70 is allowable over Wang and Webster in combination.

Claim 74 and its dependent claims

Claim 74, as amended, is directed to a system and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot

information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 74 is allowable over Wang and Webster in combination.

Claims 75-80 depend from claim 74 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 74.

Claim 76 is separately allowable for at least the following additional reasons. Claim 76 is directed to a system and includes a third pilot symbol, the third pilot symbol being identical to the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 76 is allowable over Wang and Webster in combination.

Claim 77 depends from claim 76 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 76. Claim 77 is separately allowable for at least the following additional reasons. Claim 77 is directed to a system wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 77 is allowable over Wang and Webster in combination.

Claim 81 and its dependent claims

Claim 81, as amended, is directed to a system and includes a first pilot symbol including pilot information on a first plurality of alternate tones, and a second pilot symbol including pilot information on a second plurality of alternate tones, wherein the tones in the second plurality of alternate tones and the first plurality of alternate tones are on opposite sides of and a same distance from a tone. For at least the same reasons set forth above with respect to claim 1, claim 81 is allowable over Wang and Webster in combination.

Claims 82-87 depend from claim 81 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 81.

Claim 83 is separately allowable for at least the following additional reasons. Claim 83 is directed to a system and includes a third pilot symbol, the third pilot symbol being identical to

the first pilot symbol. For at least the same reasons set forth above with respect to claim 3, claim 83 is allowable over Wang and Webster in combination.

Claim 84 depends from claim 83 and also is submitted to be allowable for at least the same reasons set forth above with respect to claim 83. Claim 84 is separately allowable for at least the following additional reasons. Claim 84 is directed to a system wherein the third pilot symbol is between the first pilot symbol and the second pilot symbol. For at least the same reasons set forth above with respect to claim 4, claim 84 is allowable over Wang and Webster in combination.

By responding in the foregoing remarks only to particular positions taken by the Examiner, Applicants do not acquiesce with other positions that have not been explicitly addressed. In addition, Applicants' arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

Applicants respectfully request that all pending claims be allowed. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: May 5, 2008

/Mark D. Kirkland/

Mark D. Kirkland
Reg. No. 40,048

PTO Customer No. 26200
Fish & Richardson P.C.
Telephone: (650) 839-5070
Facsimile: (650) 839-5071